

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Canceled)

2. (Previously Presented) The method of claim 7, further including:

the granting service generating a Ticket-Granting-Ticket utilizing a protocol substantially in compliance with the Kerberos protocol; and

wherein receiving by the granting service a request for a Service Ticket from a client further includes the granting service receiving the Ticket-Granting-Ticket from the client.

3. (Currently Amended) The method of claim 7, wherein, upon the granting service determining ~~if that~~ the requested service is provided by a plurality of servers, the granting service further:

~~if so, the granting service further~~
determining a number of the servers designated to provide the requested service; and

encrypting a cipher text with each of the session keys;
wherein the determining of a number of the servers designated to provide the requested service includes:

the granting service utilizing a database that maps a generic server name to a specific server name; and

the granting service setting the numbers of servers designated to provide the service equal to the number of specific server names mapped to the generic server name that provides the requested service.

4. (Previously Presented) The method of claim 3, wherein the granting service utilizing a database that maps a generic server name to a specific server name includes the granting service selecting a database from a group consisting essentially of:

- a domain name server database,
- a database associated with a Key Distribution Center, and
- a Kerberos database.

5. (Original) The method of claim 3, wherein the secret keys associated with each providing server are not synchronized across the providing servers.

6. (Previously Presented) The method of claim 3, wherein the created Service Ticket includes:

- a header that designates the Service Ticket as a format that includes multiple encrypted session keys,
- a field that expressly designates the number of encrypted session keys,
- an encrypted session key for each providing server, and
- the encrypted cipher text.

7. (Currently Amended) A method of generating a Service Ticket for a requested Service comprising:

- receiving by a granting service of a computing device, the computing device being different and distinct from a client, a request for a Service Ticket from the client;

- the granting service, determining ~~if~~that the requested service is provided by a plurality of servers; and:

- ~~if not, the granting service generating the Service Ticket utilizing a single server mode; and~~

- ~~—— if so, the granting service:~~

- ~~generating a session key;~~

- ~~for each providing server, encrypting the session key with a secret key~~

associated with each respective server;
creating -a Service Ticket that includes -the encrypted session keys for
the ~~plurality~~plurality of providing servers; and
transmitting the Service Ticket to the client.

8. (Currently Amended) A method of generating a Service Ticket for a requested service comprising:

receiving by a granting service of a computing device, the computing device being different and distinct from a client, a request for a Service Ticket from the client;

determining, by the granting service, that the requested service is not provided by a plurality of servers;

generating, by the granting service, the Service Ticket utilizing a single server mode~~The method of claim 7, wherein the granting service generating the Service Ticket utilizing a single server mode includes:~~

the granting service generating a cipher text;

the granting service encrypting the cipher text with a secret key associated with the providing server; and

the granting service transmitting the Service Ticket, that includes the encrypted cipher text, to the client.

9. (Canceled)

10. (Previously Presented) The method of claim 13, wherein the receiving server receiving a Service Ticket is part of a series of client transactions substantially in compliance with the Kerberos protocol.

11. (Currently Amended) The method of claim 13, wherein the receiving server decrypting the encrypted session key includes:

the receiving server determining a number of the ~~plurality~~plurality of encrypted

session keys included within the received Service Ticket;

for each encrypted session key, the receiving server decrypting the encrypted session key utilizing a secret key associated with the receiving server; and wherein the receiving server decrypting the cipher text utilizing the decrypted session key includes

for each encrypted session key, the receiving server attempting to decrypt the cipher text with the decrypted session key;

if the cipher text is successfully decrypted, the receiving server providing the service to the client.

12. (Previously Presented) The method of claim 13, wherein the receiving server decrypting the encrypted session key associated with the receiving server utilizing a secret key associated with the receiving server includes:

the receiving server utilizing a server identifier to determine which encrypted session key is associated with the receiving server; and

the receiving server decrypting the associated encrypted session key utilizing a secret key associated with the receiving server.

13. (Currently Amended) A method of authenticating a client's request for a service provided by a service pool comprising:

a server receiving a Service Ticket, the client having ~~at least one encrypted session keys, each key associated with a server within the service pool,~~ and an encrypted cipher text, the client sending service tickets to multiple ~~severs~~servers, including the receiving server, to establish multiple connections;

the receiving server determining ~~if that~~ the received Service Ticket includes a plurality of encrypted session keys for multiple servers; and

~~if not, the receiving server processing the ticket in a single server mode; and~~
~~if so, the receiving server:~~

decrypting the encrypted session keys key associated with the receiving server; utilizing a secret key associated with the receiving server;
decrypting the cipher text utilizing the decrypted session key; and
providing the service to the client.

14. (Currently Amended) The method of claim 4352, wherein the receiving server processing the ticket in a single server mode includes the receiving server processing the Service Ticket in utilizing a process substantially compliant with the Kerberos protocol.

15. (Previously Presented) The method of claim 13, wherein the receiving server receiving a Service Ticket includes:

a managing agent first receiving a Service Ticket;
the managing agent selecting the receiving server from a server pool having a plurality of servers;
routing the Service Ticket to the receiving server.

16. (Previously Presented) The method of claim 15, wherein the plurality of servers each includes a secret key associated with the respective servers, and the plurality of secret keys are not synchronized among the plurality of servers.

17. (Original) The method of claim 16, wherein the server pool functions as a group of independent computers working together as a single system.

18- 34. (Canceled)

35. (Currently Amended) The article of claim 40, further including instructions providing to provide for:

the granting service generating a Ticket-Granting-Ticketing utilizing a protocol

substantially in compliance with the Kerberos protocol; and

wherein receiving by the granting service a request for a Service Ticket from a client further includes receiving by the granting service the Ticket-Granting-Ticket from the client.

36. (Currently Amended) The article of claim 40, wherein the instructions ~~are further provided~~ provide for, upon the granting service determining ~~if that~~ the requested service is provided by a plurality of servers, ~~if so,~~ the granting service:

determining a number of the servers designated to provide the requested service; and

encrypting a cipher text with each of the session keys; and

wherein the determining of a number of the servers designated to provide the requested service includes instructions ~~provided~~ providing for:

the granting service utilizing a database that maps a generic server name to a specific server name; and

the granting service setting the numbers of servers designated to provide the service equal to the number of specific server names mapped to the generic server name that provides the requested service.

37. (Currently Amended) The article of claim 36, wherein the instructions ~~providing which provide~~ for the granting service utilizing a database that maps a generic server name to a specific server name ~~includes~~ include instructions ~~providing to provide~~ for the granting service selecting a database from a group consisting essentially of:

a domain name server database,

a database associated with a Key Distribution Center, and

a Kerberos database.

38. (Original) The article of claim 36, wherein the secret keys associated with each providing server are not synchronized across the providing servers.

39. (Currently Amended) The article of claim 36, wherein the instructions ~~providing~~ which provide for the granting service creating a Service Ticket further ~~includes-include~~ instructions ~~providing-to provide~~ for creating by the granting service a Service Ticket that includes:

- a header that designates the Service Ticket as a format that includes multiple encrypted session keys,
- a field that expressly designates the number of encrypted session keys,
- an encrypted session key for each providing server, and
- the encrypted cipher text.

40. (Currently Amended) An article comprising:

a tangible machine-accessible storage medium having a plurality of machine accessible instructions, wherein, when the instructions are executed by a computing device, the instructions provide for:

- receiving by a granting service of the computing device, the computing device being different and distinct from a client, a request for a Service Ticket from the client;

- the granting service determining ~~if-that~~ the requested service is provided by a plurality of servers; and

- ~~if not, generating by the granting service the Service Ticket utilizing a single server mode; and~~

- ~~if so,~~ the granting service:

- generating a session key;

- for each providing server, encrypting the session key with a secret key associated with each respective server;

- creating a Service Ticket that includes the encrypted session keys for the plurality of servers; and

- transmitting the Service Ticket to the client.

41. (Currently Amended) An article comprising:
a tangible machine-accessible storage medium having a plurality of machine accessible
instructions, wherein when the instructions are executed by a computing device, the
instructions provide for:

receiving by a granting service of the computing device, the computing device
being different and distinct from a client, a request for a Service Ticket from the client;

the granting service determining that the requested service is not provided by a
plurality of servers;

generating by the granting service the Service Ticket utilizing a single server
mode; and

~~The article of claim 40,~~ wherein the instructions providing for the granting service
generating the Service Ticket utilizing a single server mode includes instructions
providing for:

the granting service generating a cipher text;

the granting service encrypting the cipher text with a secret key associated
with the providing server; and

the granting service transmitting the Service Ticket, that includes the
encrypted cipher text, to the client.

42. (Canceled)

43. (Currently Amended) The article of claim 46, wherein the instructions provide for
the server receiving a Service Ticket ~~are to be~~ part of a series of client transactions
substantially in compliance with the Kerberos protocol.

44. (Currently Amended) The article of claim 46, wherein the instructions which
provide for the server decrypting the encrypted session key ~~includes~~ include instructions
to provide for:

the server determining a number of the plurality of encrypted session keys
included within the received Service Ticket;

for each encrypted session key, the server decrypting the encrypted session key
utilizing a secret key associated with the receiving server; and

wherein decrypting the cipher text utilizing the decrypted session key includes

for each encrypted session key, the server attempting to decrypt the cipher text with the decrypted session key;

if the cipher text is successfully decrypted, the server providing the service to the client.

45. (Currently Amended) The article of claim 46, wherein the instructions which provide for the server decrypting the encrypted session key associated with the receiving server utilizing a secret key associated with the receiving server ~~includes~~ include instructions to provide for:

the server utilizing a server identifier to determine which encrypted session key is associated with the receiving server; and

the server decrypting the associated encrypted session key utilizing a secret key associated with the receiving server.

46. (Currently Amended) An article comprising:

a storage medium having a plurality of machine accessible instructions, wherein, when the instructions are executed by a server, the instructions provide for:

the server receiving a Service Ticket, from a client having ~~at least one~~ encrypted session keys, each key associated with a server within the service pool, and an encrypted cipher text, the client sending service tickets to multiple ~~severs~~ servers, including the receiving server, to establish multiple connections;

the receiving server determining if that the received Service Ticket includes a plurality of encrypted session keys for multiple servers; and

~~if not, the server processing the ticket in a single server mode; and~~
—— ~~if so,~~ the receiving server:

decrypting the encrypted session keys ~~key~~ key associated with the receiving server, utilizing a secret key associated with the receiving server;

decrypting the cipher text utilizing the decrypted session key; and

providing the service to the client.

47. (Currently Amended) The article of claim ~~58~~46, wherein the instructions which provide for the server processing the ticket in a single server mode ~~includes~~include instructions to provide for the server processing the Service Ticket in utilizing a process substantially compliant with the Kerberos protocol.

48. (Currently Amended) The article of claim 46, wherein the instructions which provide for the server receiving a Service Ticket ~~includes~~include instructions to provide for:

- a managing agent first receiving a Service Ticket;
- the managing agent selecting the server from a server pool having a plurality of servers;
- routing the Service Ticket to the server.

49. (Currently Amended) The article of claim 48, wherein the plurality of servers each includes a secret key associated with the respective servers, and the plurality of secret keys are not synchronized among the plurality of ~~servers~~servers.

50. (Original) The article of claim 49, wherein the server pool functions as a group of independent computers working together as a single system.

51. (New) The method of claim 8, further including:

- the granting service generating a Ticket-Granting-Ticket utilizing a protocol substantially in compliance with the Kerberos protocol; and

- wherein receiving by the granting service a request for a Service Ticket from a client further includes the granting service receiving the Ticket-Granting-Ticket from the client.

52. (New) A method of authenticating a client's request for a service provided by a service pool comprising:

a server receiving a Service Ticket, the client having at least one encrypted session key, and an encrypted cipher text, the client sending service tickets to multiple servers, including the server, to establish multiple connections;

the receiving server determining that the received Service Ticket does not include a plurality of encrypted session keys for multiple servers; and

the receiving server processing the ticket in a single server mode, the single server mode to include:

decrypting the encrypted session key utilizing a secret key associated with the receiving server;

decrypting the cipher text utilizing the decrypted session key; and
providing the service to the client.

53. (New) The method of claim 52, wherein the receiving server receiving a Service Ticket is part of a series of client transactions substantially in compliance with the Kerberos protocol.

54. (New) The method of claim 52, wherein the receiving server receiving a Service Ticket includes:

a managing agent first receiving a Service Ticket;

the managing agent selecting the receiving server from a server pool having a plurality of servers;

routing the Service Ticket to the receiving server.

55. (New) The method of claim 54, wherein the plurality of servers each includes a secret key associated with the respective servers, and the plurality of secret keys are not synchronized among the plurality of servers.

56. (New) The method of claim 55, wherein the server pool functions as a group of independent computers working together as a single system.

57. (New) The article of claim 41, further including instructions providing for:

the granting service generating a Ticket-Granting-Ticketing utilizing a protocol substantially in compliance with the Kerberos protocol; and

wherein receiving by the granting service a request for a Service Ticket from a client further includes receiving by the granting service the Ticket-Granting-Ticket from the client.

58. (New) An article comprising:

a tangible machine-accessible storage medium having a plurality of machine-accessible instructions, wherein, when the instructions are executed by a server, the instructions provide for:

the server receiving a Service Ticket, from a client having at least one encrypted session key, and an encrypted cipher text, the client sending service tickets to multiple servers, including the receiving server, to establish multiple connections;

the receiving server determining that the received Service Ticket does not include a plurality of encrypted session keys for multiple servers; and

the receiving server processing the ticket in a single server mode, the single server mode to include:

decrypting the encrypted session key utilizing a secret key associated with the receiving server;

decrypting the cipher text utilizing the decrypted session key; and
providing the service to the client.

59. (New) The article of claim 58, wherein the instructions provide for the server receiving a Service Ticket to be part of a series of client transactions substantially in compliance with the Kerberos protocol.

60. (New) The article of claim 58, wherein the instructions which provide for the server receiving a Service Ticket include instructions to provide for:

a managing agent first receiving a Service Ticket;
the managing agent selecting the server from a server pool having a plurality of servers;
routing the Service Ticket to the server.

61. (New) The article of claim 60, wherein the plurality of servers each includes a secret key associated with the respective servers, and the plurality of secret keys are not synchronized among the plurality of servers.

62. (New) The article of claim 61, wherein the server pool functions as a group of independent computers working together as a single system.